

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION See paragraph 2 below

International application No.
PCT/EP2004/006975

International filing date (day/month/year)
25.06.2004

Priority date (day/month/year)
25.06.2003

International Patent Classification (IPC) or both national classification and IPC
E21B37/06, E21B43/14, E21B43/20, C23F11/10

Applicant
RHODIA CHIMIE

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

10/562055

International application No.
PCT/EP2004/006975

IAP20 Rec'd PCT/PTO 23 DEC 2005

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/EP2004/006975

Box No. II Priority

1. ☐ The following document has not been furnished:

- ☐ copy of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(a)).
- ☐ translation of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43bis.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. ☒ It has not been possible to consider the validity of the priority claim because a copy of the priority document was not available to the ISA at the time that the search was conducted (Rule 17.1). This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

4. Additional observations, if necessary:

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-11
	No: Claims	
Inventive step (IS)	Yes: Claims	4-11
	No: Claims	1-3
Industrial applicability (IA)	Yes: Claims	1-11
	No: Claims	

2. Citations and explanations

see separate sheet

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING
AUTHORITY (SEPARATE SHEET)

International application No.

PCT/EP2004/006975

IAP20 REG. REF. NO. 23 DEC 2005

Re Item V.

- 1 Reference is made to the following documents:

D1 : US 6 379 612 B1 (REIZER JAMES M ET AL) 30 April 2002 (2002-04-30)

D2 : US 6 312 644 B1 (MORIARTY BARBARA E ET AL) 6 November 2001 (2001-11-06)

- 2 Novelty (Art. 33(2) PCT)

Document D1, which is considered to represent the most relevant state of the art, discloses (claims 1-17, col. 9, l. 66) tagged scale-inhibitors which can be utilized in petroleum wells and oil field applications.

From this, the subject-matter of independent claims 1-11 differs in that it relates to a method wherein at least two streams of such scale inhibitors are injected into at least two production zones. The subject-matter of claims 1-11 is therefore novel (Article 33(2) PCT).

- 3 Inventive step (Art. 33(3) PCT)

- 3.1. The subject-matter of claim 1 refers to scale inhibitors "having different detectable moieties". The examples and the description however are based on fluorometric detectable moieties.

The problem to be solved by such tagged scale inhibitors was to improve the efficiency of the detection of scale inhibitors in the drilling fluids.

However this technical problem can only be taken into account if it would be rendered technically plausible that **substantially all claimed compounds having "detectable moieties" possess this activity.**

In the present case it is evident that the number of possible compounds which fulfil the criteria of claim 1 is such that it is **inherently implausible** that all of them will possess the claimed activity.

Therefore, the subject-matter of claims 1-3 extend to compounds which are not inventive and do not meet the requirements of Art. 33(3) PCT.

3.2. The subject-matter of claims 4-11 is distinguished from D1 in that it refers to an injection method which is not disclosed in D1.

None of the cited documents give an incentive to select the specific injection method of injecting into at least two production zones scale inhibitors having different detectable moieties such as disclosed in claim 4. Hence, an inventive step may be acknowledged for claim 4 and the claims depending on claim 4.